

COMPUTER PROGRAM PRODUCT FOR QUANTITATIVE ANALYSIS OF A
NUCLEIC ACID AMPLIFICATION REACTION

ABSTRACT OF THE DISCLOSURE

5 A computer program product for determining a threshold value
(e.g., a threshold cycle number or time value) in a nucleic
acid amplification reaction tangibly embodies instructions
readable by a machine to perform the steps of deriving a
growth curve from measurements of a signal whose intensity
10 is related to a quantity of nucleic acid sequence being
amplified in the reaction, calculating a derivative of the
growth curve, identifying a characteristic of the
derivative, and determining a threshold value associated
with the characteristic of the derivative. The method
15 provides for highly reproducible threshold values that are
independent of noise or background signal in the
amplification reaction. Embodiments of a computer program
product for determining a starting quantity of a nucleic
acid sequence in a test sample are also provided.

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